

DOCUMENT RESUME

ED 110 420

SP 009 403

AUTHOR Kallos, Daniel
TITLE Curriculum and Teaching: An Un-American View.
SPONS AGENCY Office of the Chancellor of the Swedish Universities,
Stockholm.
PUB DATE 75
NOTE 31p.; Paper presented at the Annual Meeting of the
American Educational Research Association
(Washington, D.C., March 31-April 2, 1975)
EDRS PRICE MF-\$0.76 HC-\$1.95 PLUS POSTAGE
DESCRIPTORS *Curriculum; *Curriculum Research; Educational
Research; Educational Researchers; Foreign Countries;
*Research Criteria; *Research Methodology;
*Teaching

ABSTRACT

Pedagogical research in the United States has greatly influenced the methods by which research on curriculum and teaching has been carried out in Scandinavian countries. The predominant view on how to conduct scientific research in pedagogics has always been based on the positivist philosophy of science. In the late 1960s, however, criticism concerning established methods of pedagogical research emerged in several European countries. Current research in these countries represents an important step toward the necessary redirection of pedagogical research. Research on curriculum and teaching should be based upon a thorough analysis of the functions of educational systems. Some promising attempts have been made along this line based on dialectical materialism. Theory and research on the one hand, and the practice of teaching or curriculum development on the other, are not clearly separable activities if a radical perspective toward pedagogical research--one not based on the positivist philosophy of science--is chosen. (A discussion of educational systems, curriculum, and teaching is included.) (PB)

* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *

Institute of Education,
University of Lund,
Fack,
S-220 07 Lund 7,
Sweden.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

PERMISSION TO REPRODUCE THIS COPY-
RIGHTED MATERIAL HAS BEEN GRANTED BY

Daniel Kallós

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

DANIEL KALLÓS

CURRICULUM AND TEACHING: AN UN-AMERICAN VIEW.

Paper presented at the annual meeting of the American Educational Research Association 1975.

The writing of this paper was supported by a grant from the Department of Educational Research and Development of the Office of the Chancellor of the Swedish Universities, as part of a research project concerning the "Relative Merits of Various Teaching Methods in Higher Education". The points of view, selection of facts, and opinions expressed herein are those of the author, and do not necessarily coincide with the official position of the Office of the Chancellor of the Swedish Universities.

SP009 403

CONTENTS.

Introduction.....	1
The function of educational systems.....	3
Curriculum and teaching.....	9
An Un-American view.....	17
Notes.....	20
References.....	24

INTRODUCTION.

Pedagogical research in the United States has been a main source of influence in the Scandinavian countries, especially in the years following the Second World War. The predominant views on how to conduct scientific research in pedagogics is embedded in the positivist philosophy of science, which is almost uncritically accepted in standard textbooks on how to conduct research (cf. e.g. *Kerlinger*, 1973; *Travers*, 1970). Pedagogical research is furthermore heavily influenced by theoretical, conceptual, and methodological development within disciplines like psychology, sociology, and social psychology. In fact, it has even seriously been suggested that the important variables of pedagogical research are psychological or socio-psychological (cf. *Kerlinger*, 1969).

In the late 60's the elements of a radical critique in pedagogics emerged in several European countries. This radical critique is an important back-ground for the following discussion in this paper, as I attempt to analyze some of the persisting dilemmas in research on curriculum and teaching.

It should, however, be noted that critique of current views on pedagogical research and practice is emerging in the United States too.

An intra-paradigmatic critique (cf. *Kuhn*, 1970) has, of course, always been voiced. The paper by *Shulman* (1970) on the necessary reconstruction of educational research, as well as the paper by *Walberg* (1971) on alternative strategies in the field of individualized teaching may be mentioned as examples^{1/}. Their critique is consequently primarily methodological and no real attempt is made to question scientific assumptions basic to current pedagogical research. The idea of aptitude-treatment interaction research in teaching (cf. *Cronbach*, 1967; *Cronbach and Snow*, 1969; *Berliner and Cahen*, 1973) or the mastery learning approach (cf. *Bloom*, 1968; *Blook*, 1971) are other examples of discontent with current practice and represent attempts at redirection

4

well within the predominant framework of pedagogical (or educational) research and practice^{2/}. The increased willingness to use ideas from other disciplines than psychology, social psychology, and sociology in pedagogics is a further example of discontent without orientation towards pedagogical phenomena as such. This latter trend is manifested e.g. by recent writings in the field of curriculum evaluation (cf. *Kraft et al*, 1974). A final example is provided by the repeated cry for theoretical foundation of educational research and practice. In most instances such demands are not followed or reduced to applications of theories originating in other disciplines. The role of theory in pedagogical research is likewise most often discussed well within the established views on science and the nature of pedagogical phenomena (cf. *Suppes*, 1974).

A critique that goes beyond the accepted paradigm is also apparent in the United States. Several of the authors contributing to the NSSE Yearbook on "Philosophical Redirection of Educational Research" (*Thomas*, 1972) seriously attacked some of the "sacred cows" of pedagogical research. Thus *Dunkel* (1972) and *Petrie* (1972) convincingly argued against what *Dunkel* appropriately labelled as "the narrow view of science" as a paradigm for educational research. *Gowin* (1972; 1973) discussed the artifactual nature of educational phenomena and tried to outline a cluster of criteria for the determination of what was to count as educational research. He furthermore stressed the fact that educational researchers should focus on questions concerning what is educational and what is not, rather than discussing what is scientific and what is not.

Two important and interrelated questions emerge from the discussions briefly mentioned above. The first issue concerns the nature of pedagogical phenomena and the second the problems of studying such phenomena scientifically^{3/}. A debate over such issues has a long history outside the United States, with roots in the writings of e.g. *Herbart*, *Schleiermacher*, and *Dilthey* (cf. *Nico-lin*, 1969; *Röhrs*, 1967; *Ulich*, 1972a)^{4/}.

The radical critique, however, goes beyond the issues raised in previous discussions about „Erziehungswissenschaft“, in its attempts to establish pedagogics on the foundations of dialectical materialism. This also implies a refutation of the "critical theory" approach within education, which in its turn criticized the earlier approaches^{5/}. Attempts in a truly radical direction within pedagogics are rare in the United States and in Great Britain, and dialectical materialism as a basis for pedagogical research is not one of the topics mentioned very often. The radical critique of *Ilich* recently presented by *Gintis* (1972) is, however, one example in the important domain of the political economy of education. The writings by *Brian Simon* on the effects of streaming in British schools and of the use and misuse of psychology in education is another pertinent example (*Simon*, 1971).

It is of course impossible to give a detailed picture of contemporary radical critique and research in Europe today, even if the discussion is limited to the areas of curriculum and teaching. Furthermore, such an undertaking is perhaps premature, as I am speaking of attempts rather than about definite conclusions. These attempts are, to complicate matters further, scattered and do not form a unified body of knowledge. My own aim is furthermore not to present a radical alternative for research on curriculum and teaching. Instead I will try to criticize some aspects of current research in these areas against the background of an emerging alternative approach^{6/}.

THE FUNCTION OF EDUCATIONAL SYSTEMS.

"The critical turning points in the history of American education have coincided with the perceived failure of the school system to fulfill its functional role in reproducing a properly socialized and stratified labor force, in the face of important quantitative and qualitative changes in the social relations of production. ... The conflict of economic interests eventually culminated in the functional reorien-

tation of the educational system to new labor needs of an altered capitalism." (Gintis, 1972, p. 88.)

Educational systems differ between nations. These differences may in part be explained by cultural history and tradition which made certain solutions to educational problems more probable than other. Another and more important part of the explanation of such differences lies in the domain of the political and economical structure of the society in question. It is quite obvious that the educational system of a nation is dependent upon the "society" in which it exists. Thus, the educational system may be regarded as one of the means towards the reproduction of labor force in the society, and as a means to uphold class division in society.

Gintis (1972, p. 72) notes that

"Educational reformers commonly err by treating the system of schools as if it existed in a social vacuum."

This may be true, but reference to "society" is common in discussions about curricular reform, curriculum planning and curriculum evaluation. But in many cases "society" is discussed in a mystifying way, e.g. as an "organism" with "needs" and "demands" on education. In some instances "society" is obviously synonymous to "state apparatus", while in other instances the concept of "society" refers to persons or committees working on educational matters.

The idealistic ways of thinking about educational systems has led to an over-estimation of their importance as means towards change in the political and economical structure of the state, as well as to a pessimism regarding the power of such systems^{7/}. The apparent failure of Swedish school reforms to overcome social barriers even within the educational system is an example of an overestimation of the importance of an educational reform. The obvious failure of various compensatory programs in the United States to fulfill grandiose claims is another pertinent example. But the numerous lessons do not seem to alter the high hopes for education voiced by researchers and experts in the field. At the same

it is, of course, equally fallacious to maintain the idea that educational reforms are without impact. A nationwide change of the curriculum and of the organization of the school system clearly have effects (as is the case in Sweden), even if those effects that were desired remained unattained in important respects.

In two recent papers *Johnson* (1973) and *Alkin* (1973) gave a conceptual outline for the analysis of curriculum reforms. The models outlined in those two papers provide descriptive tools for such an analysis. Although the models seem useful they fail to include the functions of the educational system. Even if the source of the curriculum reform is identified this is not sufficient to deal with the question of why a certain reform was initiated. Such a question does not merely imply that the reasons given by e.g. a committee are analyzed but that those reasons are discussed within the framework of a theory of the functions of education.

Such a discussion can have several starting-points. The quotation from *Gintis* (1972) suggests a political economical approach. His discussions come close to several recent contributions from West-Germany, where critical studies of the political economy of the educational sector have been numerous (cf. *Altvater und Huiskens*, 1972; *Huiskens*, 1972; *Heinrich*, 1973; *Nasuhn*, 1973; *Fischer*, 1974). These attempts may perhaps be most easily understood as a critique of traditional economical analyses of education on the one hand, and attempts to analyze the effects of investments in education and educational planning from a dialectical materialistic frame of reference at the other. In reading the works by the authors mentioned above one is forced to ask if the character and development of education is directly derivable from the economical structure. This also implies the difficulties of this approach to deal with the the contradictory and complex reality of everyday-life in schools. I point to these difficulties not to de-merit the approaches, but to emphasize the problems involved in developing a comprehensive theory of the functions and appearance of educational systems. Within their limits the analyses must, however,

be judged positively and provide us with at least some tools to understand the educational system^{8/}.

The approaches merely mentioned here have helped in clarifying some aspects of the function of education by de-mystifying and disclosing the meaning of several concepts and strategies used today. At the same time such analyses leads to serious doubt as to the possibilities of change through education within the narrow framework of the economical system of capitalism. This in its turn could lead to a passivity or force radical scholars within the field of pedagogics into a position of constantly criticizing wrong positions or to be content with disclosing to the public the true character of e.g. current attempts at reform.

In discussing education as an immaterial product Huisken (1972, p. 287), however, points to certain possibilities of teachers and students:

"Im Ausbildungsprozess als einem sozialem Prozesse, wirkt die Immaterialität des „Arbeitsgegenstandes“ zurück auf die Arbeit des Lehrers. Da das resultat der Ausbildungsarbeit des Lehrers selbst mit der heute sehr verfeinerten Kontroll- und Testmethoden nicht exakt zu messen ist, entzieht sich gleichfalls die Arbeit des Lehrers der detaillierten, auf technologischen Hypothesen basierenden Planung und Steuerung. Trotz intensiver sozial-technologischer Bemühung im Bereich von Lernplanung, Lernsteuerung und Lernkontrolle enthält der Ausbildungssektor Unplanbares, das - positiv formuliert - dem Lehrer potentiell Spielräume für eigene Entscheidungen über Unterrichtsmethoden, Lerneinhalte etc. bietet und dem Schüler die Möglichkeit eröffnet, im sozialen Prozesse Interessen und Bedürfnisse zu artikulieren, gegen Lehrerentscheidungen zu protestieren, sie zu verwerfen und kollektiv neue zu fallen. Was auf der eine Seite als relative Autonomie der im Unterrichtsprozess interagierenden Personen erscheint, was zugleich dem Konsumenten der Dienste des Lehrers innerhalb bestimmte Grenzen Einflussmöglichkeiten auf dem Konsumtionsprozess eröffnet, bedeutet auf der anderen Seite sowohl für den Konsumenten als auch

The analysis of these possibilities - i.e. the analysis of the "Spielraum" - must of course be linked to the analysis of the educational system as such. It should be clear from what has been stated earlier that I do not regard education as an autonomous force, but rather as dependent on the economical and political structure. Theoretically speaking it is, however, difficult to fill the gap between the politico-economical level of analysis at the one hand the analysis at the classroom level at the other hand. In its turn this implies that the development of e.g. attempts to establish radical educational alternatives at the level of teaching lacks a proper theoretical foundation.

An analysis of the functions of educational systems must then be directed towards all levels of educational activity and thus also include the actual teaching experiences. Such a task was clearly recognized by Bourdieu (1972) in defining educational sociology as the analysis of the contribution of the educational system to the reproduction of the structure of power-relations and symbolic relations between classes, as it contributes to

*"... der Reproduktion der Struktur der Verteilung
des kulturellen Kapitals unter diesen Klassen..."
(ibid., p. 91)*

He furthermore stresses an oftenforgotten aspect of power relations:

*"Denn unter all den Lösungen, die im Laufe der
Geschichte für das Problem der Übermittlung der
Macht und der Privilegien gefunden worden sind,
gibt es zweifellos keine einzige, die besser
verschleiert ist und daher solchen Gesell-
schaften, die dazu neigen, die offenkundigsten
Formen der traditionellen Übermittlung der
Macht und der Privilegien zu verweigern, ge-
rechter wird als diejenige, die das Unter-
richtssystem garantiert, indem es dazu beiträgt,
die Struktur der Klassenverhältnisse zu repro-*

duzieren, und indem es hinter dem Mantel der Neutralität verbirgt, dass es diese Funktion erfüllt." (ibid., p. 92)

The apparent neutrality of schools is expressed through their manifest functions of transmitting knowledge, skills, and socially accepted values. According to *Bourdieu et Passeron* (1970) the hidden function may be described as "symbolic violence". The term "symbolic" is rather similar to what has been called "the ideological level of the super-structure" in classical Marxism. It refers to a dimension of social reality different from other dimensions. It has to do with "values", "meanings", "views" etc. By symbolic violence certain "values", "meanings", etc. are forced upon the recipients as legitimate and are accepted as such. This in turn implies that certain social groups can force their values etc. upon other groups due to power relations at other levels than the symbolical one. The strength and power at the economical and political level is the foundation of the power relation at the symbolical level. *Bourdieu* and *Passeron* state that the power to implement certain ideas, values etc. through symbolical communication - as in schools - adds its own symbolical power to the non-symbolical relations of strength upon which it rests. Applied to the school system this would mean that *Bourdieu* and *Passeron* describe the ideological effects of the manifest appearance of that system, as symbolical communication where neither the symbolical violence nor its non-symbolical foundations are overtly expressed. *Callewaert* and *Nilsson* (1974) have pointed out that the analysis by *Bourdieu et Passeron* (1970) allows us to refute the common mis-understanding that it is the formal educational system that bears the responsibility for the origin, the shaping, and the upholding of existing ideas and values in society as such. On the contrary it is the task of the schools to cultivate and diffuse these ideas and values^{9/}.

The manifest functions of transmission of knowledge, skills, and values is thus not a neutral process. Its expression as curriculum and teaching form the basis

for the contribution of educational systems to cultural and social reproduction.

CURRICULUM AND TEACHING.

The notions in the previous sections may be used as a foundation for a concrete discussion about curriculum and teaching.

For the sake of clarity I will use the definitions by Alkin (1973) and Johnson (1973) as a starting-point. They relate the concepts of curriculum and instruction to each other in the following way:

"... curriculum involves the intended learning outcomes - the intended results or ends of instruction. Instruction, on the other hand, involves the planning and operation of appropriate strategies for curricular components, and therefore refers to the means used to achieve learning outcomes, intended or otherwise." (Alkin, 1973, p. 195)

I have referred earlier (p. 5) to the matrix suggested by Alkin as a tool or a framework for the analysis of curriculum and instructional reform. He uses the terms "macro" and "micro"

"... suggestive of a continuum of curriculum-related decisions running from broad societal to teacher instructional decisions." (ibid., p. 195)

At any given level in the macro to micro curricular dimension Alkin furthermore separates between "instructional planning" and "instructional operations". At the micro curricular level we have reached the unit of a "lesson", the modal level is identified by courses and instructional units etc.

The framework developed may be used to discuss issues somewhat different from those taken up by Alkin. At any given level we may define the options available to teachers and students in terms of decisions taken at higher levels. These decisions define an important part of the „Spielraum" discussed earlier (pp. 6-7).

In order to take some further steps I will introduce

some further distinctions. Bernstein (1971) discussed the classification and framing of educational knowledge. Such knowledge is realized through three message systems which he labels "curriculum", "pedagogy", and "evaluation".

"Curriculum defines what counts as valid knowledge, pedagogy defines what counts as a valid transmission of knowledge, and evaluation defines what counts as a valid realization of this knowledge on the part of the taught." (ibid., p. 47)

He furthermore distinguished broadly between two types of curricula, using the boundaries between contents as the separating dimension.

"If contents stand in a closed relation to each other, that is, if the contents are clearly bounded and insulated from each other, I shall call such a curriculum a collection type. Here the learner has to collect a group of favoured contents in order to satisfy some criteria of evaluation. There may of course be some underlying concept to a collection: the gentleman, the educated man, the skilled man, the non-vocational man. Now I want to juxtapose against the collection type, a curriculum where the various contents do not go their own separate ways, but where the contents stand in an open relation to each other. I shall call such a curriculum an integrated type. Now we can have various types of collection, and various degrees and types of integration." (ibid., p. 49)

Presented in this general way the types of curricula may be distinguished and discussed at the various levels suggested by Alkin (1973). Bernstein introduces two other central concepts - classification and framing - based on the notion of boundary strength between contents.

"Classification, here, does not refer to what is classified, but to the relationships between contents. ... Where classification is strong, contents are well insulated from each other by strong boundaries. Where classification is

weak, there is reduced insulation between contents for the boundaries between contents are weak or blurred. Classification thus refers to the degree of boundary maintenance between contents. Classification focuses our attention upon boundary strength as the critical distinguishing feature of the division of labour of educational knowledge. (ibid., p. 49)

The concept of classification is related the curriculum message system. The second concept - "frame" - is related to the structure of the message system pedagogy. It refers to the boundaries between what may and what may not be transmitted in the pedagogical relationship. It does not refer to contents of the pedagogy.

"Frame refers us to the range of options available to teacher and taught in the control of what is transmitted and received in the context of the pedagogical relationship. Strong framing entails reduced options; weak framing entails a range of options. Thus frame refers to the degree of control teacher and pupil possess over the selection, organization and pacing of the knowledge transmitted in the pedagogical relationship. (It follows that frame strength for teacher and taught can be assessed at the different levels of selection, organization, and pacing of the knowledge.) (ibid., p. 50)

The concepts of classification and frame can be directly related to the possibilities of teachers and students to form their curriculum and the range of options available to them in the pedagogical relationship^{10/}.

The concept of frame has been used in a somewhat broader sense by Dahllöf (1971) and it has been elaborated upon by Lundgren (1972), Kallós and Lundgren (1972), Kallós (1973a; 1973b). We have used the concept of frame to denote constraining and directing "factors". Decisions about frames may then be entered at various levels within the educational system and may thus be discussed along a macro to micro continuum. At the macro level ^{frames} are to be regarded as explicit expressions

12

of predominant views on education, including e.g. decisions on number of school years, age of school entrance, statements of the general aims of teaching, legislation concerning the educational system, qualifications of teachers etc. Within the space defined by the frame decisions at the macro level (which also in many instances include decision rules for lower levels) further frames are decided upon.

Frames decided upon at the level immediately above teachers and students have been termed "proximal frame factors" by *Kallós and Lundgren* (1972), and concern content, organization, time, persons, and physical arrangements. A given set of proximal frames does not provide teachers and students with an unambiguous, precise, or complete set of rules for the game of teaching.

In the perspective of analyzing and comparing different curricula I suggest that actual frame decisions as well as the levels at which they are actually taken is an important aspect (cf. *Dahlöf*, 1973).

If the focus is the options available to the teacher classification and framing (using *Bernstein's* terms) together with decisions concerning the wider range of proximal frames determine curricular and pedagogical boundaries^{11/}.

The decisions about the educational system at the macro level do not only concern "intended outcomes", i.e. in the terminology used here they are not only curricular. The examples given above indicate a more encompassing framework. Many of the attempts at change can be understood as technological rationalizations. The question is one of efficiency in the light of scarce resources. One way of action implies a reduction of the options open to teachers and students in the pedagogical relationship (cf. *Bammé und Holling*, 1973; *Huiskens*, 1972, pp. 133ff).

Bernstein (1971; 1973) has, as already indicated, discussed various educational codes. In Great Britain, the United States, and in Sweden, a certain shift towards an integrated code of the weak classification and weak framing type may be detected. Such a develop-

ment brings us back to the questions concerning the functions of educational systems. I am not at all convinced that various "project-oriented curricula" or "open schools" represent a radicalization, although such "innovations" sometimes are regarded in that way.

The framework for the analysis of curriculum and teaching discussed so far, has been limited to the curriculum aspect, and the comments on what *Alkin* (1973) calls "instructional operations" have been general.

Research on instructional operations is an important part of pedagogical research as such. The study of instructional processes also sharply mirrors current thinking on issues like those raised in the introduction of this paper, i.e. questions concerning what is scientific and what is not, and questions concerning the nature of pedagogical phenomena. In a paper invited by this association *Dahlöf* (1974) discussed several of the issues pertinent to process-related research on curriculum and teaching at different problem levels. In the framework for research and study of curriculum and teaching developed so far teaching (or instruction) has been regarded as a rule-governed activity fulfilling definable functions in society. The activities going on in the classroom and the planning of these activities by teachers (and students) were regarded as constrained and directed by imposed frame-factors. The implications of such views for the study and analysis of teaching at the classroom level was extensively discussed in several earlier papers (*Kallós*, 1973a; 1973b; 1974a; 1974b; *Kallós and Lundgren*, 1972; 1974; 1975). I will therefore treat this important issue rather briefly in this paper.

- Firstly, a general discussion of instruction (or teaching) as means towards predetermined ends has serious limitations (cf. e.g. *Kliebard*, 1970). As a prescriptive model for curriculum and teaching it imposes strong frames and accentuates the elements of power and control in teaching.

The technological extension to a curriculum-teaching model based on predetermined behaviourally defined

objectives can be seriously and justly criticized from a number of different positions (cf. e.g. *Bammé und Holling*, 1973; *Bruder*, 1971; *Eisner*, 1969; *Esland*, 1971; *Freire*, 1970; *MacDonald and Wolfson*, 1970).

- Secondly, it should be recognized that the relations between teaching and learning are controversial. A general theory of teaching cannot be deduced from theories of learning, although by virtue of possible power and control relations in the classroom teaching (or instruction) may be constrained and directed in such a way that it is at least seemingly in accordance with theories or principles of learning (cf. also the clarifying discussions on relations between learning processes and teaching processes by *Lundgren*, 1972, pp. 342ff and *Westbury*, 1971).
- Thirdly, teaching activities may be studied, described, analyzed, and explained in a number of ways. Various procedures for classroom observation have been devised mirroring different perceptions of educational phenomena and pedagogical research. The approaches that are most reasonable from the frame of reference outlined in this paper are those of *Bellack et al* (1966) and *Smith and Meux* (1970). The approaches by *Jackson* (1968) and *Smith and Geoffrey* (1968) are also quite relevant and by no means incompatible with the approaches by *Bellack* and *B.O. Smith*. Other important theoretical and empirical contributions in this area include *Keddie* (1971), *Nash* (1973; 1974) as well as several of the papers in *Cazden et al* (1972) and *Eggleston* (1974).
- Fourthly, the epistemological basis of teaching is an important basis for its analysis and explanation. This is already implied above in the first notion. The following quotation from *Esland* (1971) may illustrate this point concretely. *Esland* vividly describes some of the aspects of the predominant and legitimized epistemology, in which the student is regarded as

"... a novice in a world of pre-existing, theoretical forms into which he is initiated and which he is expected to reconstitute. The teacher monitors his progress by means of "objective" evaluation and he is differentiated from others by its

"objective" criteria. According to the parameters of this model, the teacher is society's surrogate selector; his certified competence to perform this function is not in question. Any criticism which attaches to him as a "poor" teacher is likely to refer to his enactive technique, his charisma, or his ability to maintain "order"; it is not likely to attack the basic epistemology on which his pedagogy rests.

This view regards the child - by definition - as a deficit system; a passive object to be progressively initiated into the public thought forms which exist outside him as massive, coercive facticities, albeit "worthwhile" ones. It also legitimates a didactic pedagogy - the "good pupil" is docile and deferential, cognitively, at least - and it provides particular organizing principles for the selection and transmission of knowledge.

It is possible to regard this epistemology as a reification of both the child and public knowledge; for teachers and pupils, the pedagogy which is founded on it as an agency of alienation, and the knowledge content is an important form of false consciousness." (Esland, 1971, p. 89)

It is important to recognize that the subject (teacher) - object (student) relationship may be regarded as symbolic violence (cf. p. 8) and accordingly be linked to the objective functions of schools.

Freire (1970) has suggested a subject-subject relationship between teacher and student as a dialectical approach to teaching. Such a relationship is perhaps a necessary condition, but it is by no means a sufficient condition for a radical approach. I have noted earlier (Kallós, 1974b, pp. 20-21) that as far as teaching is confined to rather unimportant areas of knowledge the existing frames in most cases permit a subject-subject relationship in the classroom. Recent trends towards e.g. teaching of a sensitivity-training type may be judged in this perspective, and according to the contents be recognized as potential agents of alienation and mystification, or as a more advanced form of symbolic violence.

- Fifthly, the issues of power and control are apparent in a discussion of curriculum and teaching when regarded in relation to the functions of schooling. The concept of "frame" emphasizes this aspect. But power and control do not only refer to decisions concerning what may and what may not be transmitted in the pedagogical relationship, but also to the more general

issue of the separate "roles" and functions of teachers and students and the objective conditions that determine the overt expressions of these functions.

A concrete manifestation of the elements of power and control is the evaluation system used, which is invariably linked to curriculum and teaching. At one level the evaluation system used reflects the basic epistemology (cf. the quotation from *Esland* on page 14-15) and the means-ends thinking (cf. pp. 14-15). More importantly the evaluation system is the basis for fulfilling certain functions of the educational system as such, e.g. as it is used as a basis for selection and streaming. The evaluation system to an important extent defines the professional task of teachers. *Kvale* (1972) in a careful analysis demonstrated how examination practices and other aspects of evaluation reflect both manifest and latent functions of the educational system as such. Finally it can be noted that an analysis of evaluation practices clearly demonstrate the symptomatic contradictions of educational systems in countries like e.g. Sweden and the United States.

The discussion in this section aimed at illuminating a framework for research on curriculum and teaching in the perspective of the functions of educational systems. It should be quite obvious that theory and research at the one hand and the practice of teaching or curriculum development are not clearly separable activities if a radical perspective is chosen. In the section on the functions of educational systems I repeatedly voiced scepticism as to the possibilities of changing society through its educational systems. I also noted that it is important to analyze these functions as a basis for efforts within the "Spielraum" and the difficulties of such an analysis should have been emphasized also in this section.

AN UN-AMERICAN VIEW.

"Ich hatte eingangs gesagt, dass die häusliche Erziehung sich harmonisch ergänzend anschliessen soll an die öffentliche Erziehung. Solange aber die Schule ein Instrument der Klasseherrschaft ist, solange sie in erster Linie das Ziel verfolgt, nicht Menschen zu bilden, sondern geschickte Produktionswerkzeuge und demutsvolle Untertanen für die Kapitalistische Gesellschaftsordnung, solange wird auch die häusliche Erziehung die Kinder und die Eltern in Konflikt mit der Schule bringen." (Zetkin, 1906, pp. 51-52)

The above quotation is taken from a speech given by Clara Zetkin at the congress of the Social-Democratic party in Mannheim 1906. In her speech Zetkin recognized that public education in its then present form was against the interests of the working class. She clearly recognized the need of a counter-education which would enable the child to partake in the class struggle within the school together with its parents. At the same time Zetkin clearly recognized the limits of such an approach, due e.g. to the material situation in the family and the political organization of the party (cf. also Hoernle, 1929)^{12/}.

An analysis of public education today reveals that the functions have remained, although its concrete manifestation has changed. Inequalities are obvious and the contents of schooling and how this content is presented is still class based. The sources mentioned in the section on the functions of educational systems make this abundantly clear.

I have chosen the label "Un-American" for several reasons, and in stating those I may also summarize what I have said and draw some conclusions.

The starting-point was twofold. At the one hand I noted that research and training of researchers within the field of pedagogics in Sweden is heavily influenced by predominant paradigms in the United States. At the other hand I noted that the predominant views on science and

on the nature of pedagogical phenomena could be seriously questioned. It is a challenge to pedagogical researchers in the United States to seriously reconsider the basis for their research efforts. Such an effort has as I have indicated already begun in the United States, although the impact of the dissenting scholars is hard to assess for an out-sider.

Current handbooks and textbooks on research in pedagogics in general and on research on curriculum and teaching in particular which are published in the United States are utterly American. References to work from non-American sources are scarce or nonexistent. I have tried to demonstrate that current research in e.g. several European countries represent important steps for the necessary redirection of pedagogical research. I, however, hope that I have avoided the trap of presenting these efforts as a new set of dicta or as a wonder-drug for an ailing patient. I do not want to substitute the unreflected acceptance of one paradigm for the equally unreflected use of another.

I have furthermore suggested that research on curriculum and teaching should be based upon a thorough analysis of the functions of educational systems. Such an endeavour is by no means simple. I pointed to some promising attempts that were based on dialectical materialism. This might well be judged as Un-American.

In developing a framework for the analysis of curriculum and teaching I used some proposals from *Alkin* (1973) and *Johnson* (1973) as a point of departure. The framework that I tried to develop may be used rather neutrally, although I made several directive remarks, especially concerning teaching.

The problems enter in the selection of research problems and the perspectives used in analyzing current educational programs. The researcher cannot remain neutral. The choice is political as well as scientific, and involves strategical and tactical considerations. Several of the books and papers referred to contain reflection upon these issues. I have abstained from presenting such deliberations as models for

action or as advice to my American colleagues. The choice - if it is a true choice - for Un-American research and practice in America is not mine, although it will perhaps affect even me.

NOTES.

1. *Walberg* (1971) states that educational research is in a state of "crisis", and consequently in need of a new "paradigm". He uses the concepts of "crisis" and "paradigm" according to *Kuhn* (1970). As I have discussed elsewhere (*Kallós*, 1973a) the alternative presented by *Walberg* (1971) is well within the established "paradigm". His response to "crisis" is obviously based upon a limited understanding of both the "crisis" and the predominant "paradigm".

2. Research on aptitude-treatment interaction can be criticized from a number of standpoints. I have presented one such discussion elsewhere (*Kallós*, 1974a). The more general issue of the relations between psychology and pedagogics is discussed by *Kallós and Lundgren* (1975) with special emphasis on the relations between research and practice of teaching at the one hand and educational psychology at the other.

3. I have tried to analyze these two issues at length in two previous papers (*Kallós*, 1973a; 1974b).

4. The hermeneutical approach in pedagogics is at least indirectly touched upon by *Strike* (1972) in his contribution to the aforementioned volume edited by *Thomas* (1972). Interest in these issues is also manifested in the selection of articles for the volume on "Philosophy of Educational Research" sponsored by the AERA (*Broudy, Ennis and Krimerman*, 1973). The book by *Palmer* (1969) as well as papers presented at recent annual meetings of the "Philosophy of Education Society" (e.g. *Vandenberg*, 1973) could also be mentioned as indicators of interest in the hermeneutical approach within the United States.

5. Discussions of the "critical theory" approach in pedagogics are presented by e.g. *Feuerstein* (1973), *Ulich* (1972b), and *Witschel* (1973). *Klafki* (1971) tried to compare hermeneutical, empirical and critical theoretical approaches in pedagogics, and his article provides a comprehensive summary of many of the issues raised in

the debate between these three "schools" of thought in pedagogics.

6. It should be noted that the radical debate in pedagogics is not very strong in Sweden. Swedish educational research has been and is heavily influenced by the developments in the United States. This is reflected not only in the training of educational researchers in Sweden, but also in the research programs sponsored by e.g. the National Board of Education as well as in the uncritical borrowing of supposed remedies for perceived problems in schools (cf. also the review of educational research in Sweden presented by *Alkin and Johnson*, 1971, and the short article by *Johnson*, 1972, on educational R & D in Sweden). The scenery is somewhat different in Denmark and Norway.

7. 50 years ago Siegfried *Bernfeld* published a small volume entitled „Sisyphos oder die Grenzen der Erziehung". Especially the two first chapters of that book offers a stimulating and thought-provoking discussion on the limits and the power of educational efforts. This little book is finally available also in the United States (*Bernfeld*, 1973).

8. I had originally planned to include a rather lengthy description of the results of the analyses only mentioned here, and especially the discussions about the concept of "qualification", which of course is important as a basis for curriculum planning as it is directly related to the question of selection of objectives or goals. I had also planned to use the analysis by *Heinrich* (1973) of the school reform in West-Germany, and the discussion by *Fischer* (1974) of current reforms in higher education in Sweden as concrete examples and illustrations of the limitations as well as the fruitfulness of the approaches mentioned. I realized, however, that such an attempt would burst the limits of this paper.

204

9. *Bourdieu et Passeron* (1970) have tried to develop a general theory of symbolic influence. The school system is regarded as a special case. The theoretical presentation is highly abstract and formalized as a hierarchical arrangement of theses. Some earlier papers by *Bourdieu* have been translated into English and included in readers in educational sociology (*Young*, 1971; *Eggleston*, 1974).

10. The discussion of the functions of educational systems laid an emphasis on the contributions of such systems to social and cultural reproduction. The experiences in school (or in the family) must of course be related to those made outside the school (or the family). *Bernstein* (1971, p. 50) in passing notes that his concept of "frame" may be used in this context:

"There is another aspect of the boundary relationship between what may be taught and what may not be taught and consequently, another aspect to framing. We can consider the relationship between the non-school everyday community knowledge of teacher and taught, and the educational knowledge transmitted in the pedagogical relationship. We can raise the question of the strength of the boundary, the degree of insulation, between the everyday community knowledge of teacher and taught and educational knowledge. Thus, we can consider variations in the strength of frames, as these refer to the strength of the boundary between educational knowledge and everyday community knowledge of teacher and taught."

This notion has several implications. Firstly, it points to the important relationship between educational knowledge and "everyday community knowledge". Secondly, and more importantly, it raises the question of eventual differences between students as to the relationship between these two forms of knowledge. *Bernstein* (1971, pp. 57-58) notes that the pacing of educational knowledge is class based. It is highly probable that the relationship between educational knowledge and "everyday community knowledge" also is class based.

11. Studies of curriculum and teaching using the frame-factor concept are accumulating. Empirical data have thus been provided by *Dahllöf* (1971) focussing on ability grouping, by *Lundgren* (1972; 1973; 1974) and by *Björklund, Kallös and Larsson* (1974) and *Kallös and Herslow* (1974).

12. I am indebted to my colleague Dr Eva-Mari *Köhler*, for pointing out this aspect of *Zetkin's* speech (cf. *Köhler*, 1975).

REFERENCES.

- ALKIN, M.C., 1973: Theoretical framework for the analysis of curriculum and instructional reform. *International Review of Education*, vol. 19, pp. 195-207.
- ALKIN, M.C. and JOHNSON, M., 1971: Comments on the research and development program of Byrå L4:1. *School Research Newsletter*, 1971:24. (National Board of Education, Sweden.) Mimeo.
- ALTVATER, E. und HUISKEN, F. (eds.), 1971: *Materialen zur politischen Ökonomie des Ausbildungssektors*. Erlangen: Politladen.
- BAMME, A. und HOLLING, E., 1973: Zur Kritik der Curriculum-Theorie. *Das Argument. Sonderheft*, pp. 107-119.
- BELLACK, A.A., KLIEBARD, H.M., HYMAN, R.T. and SMITH, F.L., 1966: *The Language of the Classroom*. New York: Teachers College Press.
- BERLINER, D.C. and CAHEN, L.S., 1973: Trait-treatment interaction and learning. In KERLINGER, N.F. (editor): *Review of Research in Education. Volume 1*. Pp. 53-94.
- BERNFELD, S., 1973: *Sisyphus or the Limits of Education*. Berkely: University of California Press.
- BERNSTEIN, B., 1971: On the classification and framing of educational knowledge. In YOUNG, M.F.D. (editor), 1971, pp. 47-69.
- BERNSTEIN, B., 1973: *Class and Pedagogies: Visible and Invisible*. University of London, Institute of Education. Mimeo.
- BJÖRKLUND, S., KALLÓS, D. and LARSSON, L., 1974: Hardware gone soft. Teaching under strong frame-conditions at an institute of technology. *Report from the Institute of Education, University of Lund*, no. 48, September 1974. Mimeo.
- BLOCK, J.H. (editor), 1971: *Mastery Learning: Theory and Practice*. New York: Holt, Rinehart & Winston.
- BLOOM, B.S., 1968: Learning for mastery. *UCLA-CSEIP Evaluation Comment*, 1, May 1968.
- BOURDIEU, P., 1972: Kulturelle und soziale Reproduktion. In BOURDIEU, P. und PASSERON, J.-C., 1973: *Grundlagen einer Theorie der symbolischen Gewalt*. Pp. 91-137. Frankfurt/M: Suhrkamp Verlag.
- BOURDIEU, P. et PASSERON, J.-C., 1970: *La reproduction*. Paris: Editions de Minuit.
- BROUDY, H.S., ENNIS, R.H. and KRIMERMAN, L.I. (eds.), 1973: *Philosophy of Educational Research*. New York: J. Wiley.
- CALLEWAERT, S. och NILSSON, B.A., 1974: *Samhället - skolan och skolans inre arbete*. (Society - school and work within schools. In Swedish.) Sociologiska institutionen, Lunds Universitet. Mimeo.
- CAZDEN, C.B., JOHN, V.P. and HYMES, D. (eds.), 1972:

Functions of Language in the Classroom. New York: Teachers College Press.

- CRONBACH, L.J., 1967: How can instruction be adapted to individual differences? In GANE, R.M. (editor): *Learning and Individual Differences*. Pp. 23-39. Columbus, Ohio: C.E. Merrill.
- CRONBACH, L.J. and SNOW, R.E., 1969: *Final Report: Individual Differences in Learning Ability as a Function of Instructional Variables*. School of Education, Stanford University, California. Mimeo.
- DAHLLOF, U., 1971: *Ability Grouping, Content Validity, and Curriculum Process Analysis*. New York: Teachers College Press.
- DAHLLOF, U., 1973: The curriculum development system in Sweden: Some comments on present trends and problems. *International Review of Education*, vol. 19, pp. 218-231.
- DAHLLOF, U., 1974: Trends in process-related research on curriculum and teaching at different problem levels in educational sciences. *Scandinavian Journal of Educational Research*, vol. 19, pp. 55-77.
- DUNFEL, H.B., 1972: Wanted: New paradigms and a normative base for research. In THOMAS, L.G. (editor), 1972, pp. 77-93.
- EGGLESTON, J. (editor), 1974: *Contemporary Research in the Sociology of Education*. London: Methuen.
- EISNER, E.W., 1969: Instructional and expressive educational objectives. In POPHAM, W.J. et al: *Instructional Objectives*. (AERA Monograph Series on Curriculum Evaluation, vol. 3.) Pp. 1-18. Chicago: Rand McNally.
- ESLAND, G.M., 1971: Teaching and learning and the organization of knowledge. In YOUNG, M.F.D. (editor), 1971, pp. 70-115.
- FEUERSTEIN, T., 1973: *Emanzipation und Rationalität einer kritischen Erziehungswissenschaft*. München: Kösel Verlag.
- FISCHER, L., 1974: *Die Produktion von Kopfarbeitern. Spätkapitalistische Bildungspolitik am Beispiel des Schwedischen Hochschulwesens*. Berlin: Verlag für das Studium der Arbeiterbewegung.
- FREIRE, P., 1970: *Pedagogy of the Oppressed*. New York: Herder.
- GINTIS, H., 1972: Towards a political economy of education: A radical critique of Ivan Illich's Deschooling Society. *Harvard Educational Review*, vol. 42, no. 1, pp. 70-96.
- GOWIN, D.B., 1972: Is educational research distinctive? In THOMAS, L.G. (editor), 1972, pp. 9-25.
- GOWIN, D.B., 1973: *Artifactual Regularities in Educational Research*. Paper delivered at the annual meeting of AERA, February 1973. Mimeo.
- HEINRICH, R., 1973: *Zur politischen Ökonomie der Schulreform*. Stuttgart: Europäische Verlagsanstalt.

- HOERNLE, E., 1929: *Grundfragen proletarischer Erziehung*. Reprint 1969. Frankfurt/M: März Verlag.
- HUISKEN, F., 1972: *Zur Kritik bürgerlicher Didaktik und Bildungsökonomie*. München: List Verlag.
- JACKSON, P.W., 1968: *Life in Classrooms*. New York: Holt, Rinehart & Winston.
- JOHNSON, M., 1972: The status of R & D in Sweden. *Educational Researcher*, vol. 1, no. 11, pp. 10-12.
- JOHNSON, M., 1973: The context of national educational reform. *International Review of Education*, vol. 19, pp. 187-194.
- KALLOS, D., 1973a: On educational scientific research. *Report from the Institute of Education, University of Lund*, no 36, April 1973. Mimeo.
- KALLOS, D., 1973b: Some comments on frame and control as educational concepts. In *Reports from the Institute for Educational Research, University of Jyväskylä, Finland*, no. 213/1973, pp. 65-81. Mimeo.
- KALLOS, D., 1974a: Comments on aptitude-treatment interaction research for pedagogics and for the theory and practice of teaching. To be published in SCHWARZER, R. und STEINHAGEN, K. (eds.): *Adaptiver Unterricht - Interaktionen zwischen Lehrmethoden und Lernermerkmalen*. München: Kösel Verlag. In press.
- KALLOS, D., 1974b: Educational phenomena and educational research. To be published in DOCKRELL, B. and HAMILTON, D. (eds.): *Rethinking Educational Research*. London: Hodder and Stoughton. In press.
- KALLOS, D. and HERSLOW, M., 1974: "Man kan ju alltid få reda på ett och annat om tentan, förstås." Närvaro, frånvaro och självstudier i universitetsundervisning. ("You can always get some information about the exams, can't you!" Presence, absenteeism and independent study at the university level. In Swedish.) *Report from the Institute of Education, University of Lund*, no. 44, August 1974. Mimeo.
- KALLOS, D. and LUNDGREN, U.P., 1972: *En diskussion av förutsättningar och riktlinjer för försöksverksamhet med individanpassad universitetsundervisning*. /A discussion about pre-requisites and guidelines for research and development in individualized university teaching. In Swedish./ Stockholm: The Office of the Chancellor of the Swedish Universities. Mimeo.
- KALLOS, D. and LUNDGREN, U.P., 1974: Evaluering av universitetsundervisning som pedagogiskt vetenskapligt problem. /Evaluation of university teaching as a scientific problem in pedagogics. In Swedish./ In KALLOS, D. (editor): *Utvärdering av universitet*. /Evaluation of universities./ Pp. 47-87. Stockholm: Nordisk Utredningsserie nr 20/1974.
- KALLOS, D. and LUNDGREN, U.P., 1975: Educational psychology: Its scope and limits. *British Journal of Educational Psychology*. In press.
- KEDDIE, N., 1971: Classroom knowledge. In YOUNG, M.F.D.

- (editor), 1971, pp. 133-160.
- KERLINGER, F.N., 1969: Research in education. In EBEL, R.L. (editor): *Encyclopedia of Educational Research*. Fourth Edition. Pp. 1127-1144. New York: Macmillan.
- KERLINGER, F.N., 1973: *Foundations of Behavioral Research*. London: Holt, Rinehart & Winston.
- KLAFKI, W., 1971: Erziehungswissenschaft als kritisch-konstruktive Theorie: Hermeneutik - Empirie - Ideologiekritik. *Zeitschrift für Pädagogik*, vol. 17, pp. 351-385.
- KRAFT, R.H.P., SMITH, L.M., POHLAND, R.A., BRAUNER, C. J. and GJERDE, C., 1974: *Four Evaluation Examples: Anthropological, Economic, Narrative, and Portrayal*. (AERA Monograph Series on Curriculum Evaluation, vol. 7.) Chicago: Rand McNally.
- KUHN, T.S., 1970: *The Structure of Scientific Revolutions*. (2nd ed.) Chicago: University of Chicago Press.
- KVALE, S., 1972: *Prüfung und Herrschaft. Hochschulprüfungen zwischen Ritual und Rationalisierung*. Weinheim und Basel: Beltz Verlag.
- KÖHLER, E.-M., 1975: Barns utveckling och behov samt faktorer som styr dessa. /The development and needs of children and the factors governing these. In Swedish./ Stockholm: Statens Offentliga Utredningar. In press.
- LUNDGREN, U.P., 1972: *Frame Factors and the Teaching Process*. Göteborg: Almqvist & Wiksell.
- LUNDGREN, U.P., 1973: Pedagogical frames and the teaching process: A report from an empirical curriculum project. *Reports from the Institute of Education, University of Göteborg*, no 25, February 1973.
- LUNDGREN, U.P., 1974: Pedagogical roles in the classroom. In EGGLESTON, J. (editor), 1974, pp. 200-213.
- MACDONALD, J.B. and WOLFSON, B.I., 1970: A case against behavioral objectives. *The Elementary School Journal*, vol. 71, pp. 119-128.
- MASUCH, M., 1973: *Politische Ökonomie der Ausbildung*. Hamburg: Rowohlt.
- NASH, R., 1973: *Classrooms Observed*. London: Routledge & Kegan Paul.
- NASH, R., 1974: Pupils' expectations for their teachers. *Research in Education*, no. 12, pp. 47-61.
- NICOLIN, F. (editor), 1969: *Pädagogik als Wissenschaft*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- PALMER, R.E., 1969: *Hermeneutics. Interpretation Theory in Schleiermacher, Dilthey, Heidegger, and Gadamer*. Evanston: Northwestern University Press.
- PETRIE, H.G., 1972: Theories are tested by observing the facts: Or are they? In THOMAS, L.G. (editor), 1972, pp. 131-138.
- RÖHRS, H. (editor), 1967: *Erziehungswissenschaft und Erziehungswirklichkeit*. Frankfurt/M: Akademische Verlagsgesellschaft.

- SHULMAN, L.S., 1970: Reconstruction of educational research. *Review of Educational Research*, vol. 40, pp. 371-396.
- SIMON, B., 1971: *Intelligence, Psychology, and Education. A Marxist Critique*. London: Lawrence & Wishart.
- SMITH, L.M. and GEOFFREY, W., 1968: *The Complexities of an Urban Classroom*. New York: Holt, Rinehart & Winston.
- SMITH, B.O. and MEUX, M.O., 1970: *A Study of the Logic of Teaching*. Urbana, Ill.: University of Illinois Press. (Reprint.)
- STRIKE, K.A., 1972: Explaining and understanding: The impact of science on our concept of man. In THOMAS, L.G. (editor), 1972, pp. 26-46.
- SUPPES, P., 1974: The place of theory in educational research. *Educational Researcher*, vol. 3, no. 6, pp. 3-10.
- THOMAS, L.G. (editor), 1972: *Philosophical Redirection of Educational Research*. (The 71st Yearbook of the National Society for the Study of Education. Part 1.) Chicago: University of Chicago Press.
- TRAVERS, R.M.W., 1970: *An Introduction to Educational Research*. New York: Macmillan.
- ULICH, D. (editor), 1972a: *Theorie und Methode der Erziehungswissenschaft*. Weinheim und Basel: Beltz Verlag.
- ULICH, D., 1972b: Probleme und Möglichkeiten erziehungswissenschaftlicher Theorienbildung. In ULICH, D. (editor), 1972a, pp. 13-87.
- VANDENBERG, D., 1973: Hirst, hermeneutics, and fundamental educational theory. In CRITTENDEN, B. (editor); *Philosophy of Education 1973*. Pp. 302-316. Edwardsville: Studies in Philosophy and Education.
- WALBERG, H.J., 1971: Models for optimizing and individualizing school learning. *Interchange*, vol. 2, no. 3, pp. 15-27.
- WITSCHHEL, G., 1973: *Die Erziehungslehre der kritischen Theorie*. Bonn: Bouvier Verlag.
- WESTBURY, I., 1971: Problems and prospects. In WESTBURY, I. and BELLACK, A.A. (editors): *Research in-to Classroom Processes*. Pp. 227-252. New York: Teachers College Press.
- YOUNG, M.F.D. (editor), 1971: *Knowledge and Control. New Directions for the Sociology of Education*. London: Collier-Macmillan.
- ZETKIN, C., 1906: Über die sozialistische Erziehung in der Familie. In HOHENDORF, G. (editor), 1960: *Die Erziehung der Kinder in der proletarischen Familie*. Pp. 42- 57. Berlin: Volk und Wissen.
- BRUDER, K.-J., 1971: Taylorisierung des Unterrichts. *Kursbuch*, no. 24, pp. 113-130.